

**ILLUMINATED AND NON-ILLUMINATED PHOTODIODES FOR MONITORING  
AND CONTROLLING AC AND DC COMPONENTS OF A LASER BEAM**

**ABSTRACT OF THE DISCLOSURE**

**[0059]** Embodiments of the present invention utilize two photodiodes on the same substrate, one illuminated monitor photodiode to monitor an optical beam out of a back facet (or back scattered) of a laser, and one non-illuminated reference photodiode to characterize in real time radio frequency (RF) parameters/performance to control extinction ratio and optical modulation amplitude of the laser beam.